

Delaware Water Supply Coordinating Council  
September 29, 2016  
Draft Meeting Minutes

**ADMINISTRATIVE – John Barndt, Chair**

Mr. Barndt called the meeting to order at 10:03 a.m. and welcomed everyone. Mr. Barndt introduced Mr. Jamie Jamison who is sitting in for Mr. Charles Jenner representing the Delaware Grounds Management Association. Mr. Barndt mentioned there was one reporter present. The attendance list is at the end of the meeting minutes.

**REVIEW OF MAY 19, 2016, DRAFT MEETING MINUTES**

Mr. Barndt asked if anyone had any questions or comments about the May 19 draft meeting minutes. Minor edits were made prior to the meeting. Mr. Joe DiNunzio motioned to approve and Ms. Lorraine Fleming seconded. All were in favor. None opposed.

Final minutes are posted online at <https://egov.delaware.gov/pmc/Event/Details/34217> .

**REVIEW OF SEPTEMBER 19, 2016, DRAFT EMERGENCY MEETING MINUTES**

Mr. Barndt asked if anyone had any questions or comments about the September 19 draft emergency meeting minutes. Minor edits were made prior to the meeting. Mr. Jenner submitted edits just before the meeting and could not be included at the time of the meeting so his edits were read aloud by Mr. Jamison for approval and inclusion. Mr. Vic Singer motioned to approve and Mr. DiNunzio seconded. All were in favor. None opposed.

Final minutes are posted online at <https://egov.delaware.gov/pmc/Event/Details/38746>.

**WATER CONDITIONS REPORT – Stefanie Baxter, DGS**

Ms. Baxter presented a handout summary as of September 28, 2016, of hydrologic conditions that is considered a snapshot of water conditions and are tracked on a monthly basis. This summary included information since the September 19 emergency meeting (see attachment titled Northern Delaware Drought Advisory Guidelines). The rainfall of September 29 was not included in the summary. Ms. Baxter stated that all of the rainfall for September will be included on the water conditions update which can be found on the DGS website at the end of this report.

Ms. Baxter stated that nothing moved into drought watch that wasn't already in drought watch and nothing moved from drought watch into drought warning.

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As stated in Ms. Baxter's handout:

- Precipitation for a 12-month period at the Wilmington Airport was -2.87" (deficit increased by 0.48") and -1.90" for a 6-month period (deficit increased by 0.49").
- Brandywine Creek (30-day moving avg) was at 75.5 mgd (flow increased by 2.9 mgd).
- White Clay Creek-Stanton (30-day moving avg) was at 33.1 mgd (flow increased by 1.0 mgd). White Clay Creek-Newark (30-day moving avg) was at 14.3 mgd (no change).
- Well Db24-18 was at 13.81 (fbls) (gw level declined by 0.44 ft).
- Water Conditions Index was 4.35 (index increased by 0.22)
- Chlorides – monitoring – 512 ppm (Cl decreased by 163 ppm)
- Hoopes Reservoir (City of Wilmington) was at -3.7 ft as of 9/19/16. Mr. Sean Duffy stated that Hoopes Reservoir is now at -2.7 ft as of 9/29/16 due to refilling from the Brandywine.
- Newark Reservoir was at -11.0 ft as of 9/16/16. Mr. Mark Neimeister stated that Newark Reservoir is now at -12.0 ft as of 9/29/16.
- Aquifer Storage and Recovery: SUEZ was at 0.102 mg as of 9/6/16; and AWC was at 49 mg as of 9/19/16. Mr. DiNunzio stated that AWC is now at 39 mg as of 9/29/16.
- Marsh Creek Reservoir – PA DCNR releasing ~ 7.8 mgd into Brandywine Creek under a DRBC Docket. This provides supplemental benefits to Wilmington.
- Chlorides on the Delaware River as of 9/22/16 are currently at River Mile 82 and the normal is River Mile 76. Ms. Baxter stated that as of 9/29/16 the current River Mile is at 83. Mr. Ken Najjar mentioned that it went to 84 as of 9/29/16 in the vicinity of the Commodore Barry Bridge.
- NYC DRB Reservoirs (DRBC as of 9/23/16) storage 180.3 bg which is 63 bg above drought watch.
- The Kent County Hydrologic Conditions: precipitation Dover 12-month -3.60", 6-month -2.00", 5-month +0.13". Streamflow for the St. Jones at Dover 30-day moving average for August 31 through September 28 at 10.4 mgd and is normal. Groundwater for Mc51-01a for September 2016 at 15.1 ft below land surface and is below normal.
- The Sussex County Hydrologic Conditions: precipitation Georgetown 12-month +6.60", 6-month +4.32", 5-month +3.97". Streamflow for the Nanticoke River at Bridgeville 30-day moving average for August 31 through September 28 at 24 mgd and is normal. Groundwater for Qe44-01 for September 2016 at 10.8 ft below land surface and is normal.

Ms. Baxter discussed the comparison of indicator data for years for 2007, 2012, and 2016 for Northern New Castle County, Kent County, and Sussex County (attached). A drought watch was declared in 2007 but in 2012 DNREC put out a statement saying conditions were very dry with no drought watch declaration.

Ms. Baxter presented a Power Point presentation showing stream flow during dry years (cfs) for White Clay Creek at Newark, White Clay Creek near Newark, Red Clay Creek near Stanton, and Brandywine Creek at Wilmington to compare to 2002 since that was the last major drought we had (attached). Ms. Baxter stated this information came as a request from Ms. Pamela Patone. Ms. Baxter also included the following years as a comparison because these were all considered

dry years: 1995, 1999, 2002, 2007, 2012, and 2016. Ms. Baxter stated that some years were worse than others.

Ms. Patone asked Ms. Baxter when a drought emergency was declared and Ms. Baxter deferred the question to Mr. Jerry Kauffman. Mr. Kauffman said, "There was a two-stage drought declaration and the drought warning was actually issued in the spring and that the exact date is documented in the Fifth Report to the Governor and General Assembly which is on the website".

Ms. Laura Mensch asked, "Do levels have a chance to bounce back quickly since this is the time of year they tend to bounce back, specifically, indicators that are currently in the watch/warning stage". Ms. Baxter answered, "It depends on how much precipitation we get and how we get it. It's going to be a slower recovery if rain is spread out but that Sussex County is going to bounce back up sooner with the current rainfall". Ms. Mensch stated that she asked this question to see how it could affect the voting outcome today on a drought decision.

Mr. Singer discussed the three-step ladder that was set-up for drought emergency thresholds, which is the Drought Advisory Guidelines. Mr. Barndt said, "This is something that is currently being worked on in the Thirteenth Report to the Governor and General Assembly and is on today's agenda to be discussed".

DGS' full analysis is found on <http://www.dgs.udel.edu>.

#### **FORECAST SYNOPSIS – Kevin Brinson, Assistant State Climatologist**

Mr. Brinson presented on behalf of State Climatologist, Mr. Dan Leathers (see attachment titled Precipitation Forecast).

Mr. Brinson presented the following Rainfall Summary as of 9/29/16 in his Power Point presentation:

- 0.5 to 1.5 inches of rain in northern watersheds in last 24 hours
- much more rain downstate:
  - 2-3 inches in southern New Castle and Kent Counties
  - 4 inches+ in Sussex County
  - Over 8.5 inches near Harbeson
    - 4.26 inches between 4 and 5 a.m.

Mr. Brinson presented the following Forecast in his Power Point presentation:

For 9/29/16 through 10/11/16 -

- There is a chance of a tropical system affecting our area in the next 10 days.
- Keeping an eye out on potential Tropical Storm Matthew.

5 Day Outlook (valid September 29 – October 4, 2016) –

- Going into a wet period over the next several days.

6 Day Outlook (valid October 4 – 8, 2016) –

- Going to stay warm.
- On track to being one of the top five warmest Septembers and possibly a little above normal precipitation for the next 6 – 10 days which is good news from a

drought relief standpoint . Tropical Storm Matthew will play a role in this outcome.

8-14 Day Outlook (valid October 6 – 12, 2016) –

- Staying warm again and also a decent chance of having normal precipitation.
- Not dry

3-Month Outlook (valid October – December 2016) –

- warm through the fall and into the winter
- normal precipitation.

Mr. Brinson also discussed Cumulative Evapotranspiration and Cumulative Soil Moisture Deficit for the Christina Basin for the years: 2007, 2012, and 2016 (attached).

Mr. Kauffman asked Mr. Brinson, “Was 2012 the year we had the 100° temperatures in the summer”? Mr. Brinson said, “Yes, there were quite a few”. Mr. Brinson also stated the maximum for temperatures in Delaware is usually in mid-July but there were 100° temperatures in early June 2012. Mr. Kauffman then stated that August 2016 was the warmest August in Delaware on record since 1895. Mr. Brinson stated that September is looking to be in the top five as far as the warmest. Mr. Kauffman stated the low stream flow conditions are due to warm temperatures rather than lack of precipitation and Mr. Brinson agreed. Mr. Neimeister asked Mr. Brinson, “With the extended summer like conditions, how long will ET stay high?” Mr. Brinson said, “It will be above normal until around mid-October”.

Mr. Kauffman made a recommendation to Mr. Brinson and asked if this information could be presented at future WSCC meetings because it is very informative, especially in the summer.

Mr. Najjar added, “On the drought side watches remain in effect in counties in NY, NJ and PA and about half of the counties in the Delaware River Basin are being watched. Western New York State is in Drought warning. Mr. Barndt asked Mr. Najjar if anyone has come off of drought watch yet and Mr. Najjar said no. Mr. Najjar also reported that the salt line is at RM 84 with the normal location at RM 76. Releases from the NYC reservoirs are occurring and storage remains strong. There remains less rainfall in the northern half of the basin.

## **WATER UTILITY REPORTS**

**Artesian – Joe DiNunzio presented:** “ASR storage right now is 39 mg and continuing to withdraw about a million gallons a day. Once we are finished we’ll turn it around and the target will be to have 130 mg back in storage by May 2017, around Memorial Day, which is the normal process. Seeing normal seasonal decline in demand. At the emergency meeting on September 19, the month-to-date demand on our system was 19.2 mg a day. As of the end of day on September 28, the month-to-date average was 18.8 and actually yesterday’s demand itself was 17.4. Last September 2015, we were at 18.7 mg a day so the average right now for the month is about the same as it was a year ago. Looking ahead to October, last October 2015 was 17.6. Right now everything looks to be on that trend.”

**Newark – Mark Neimeister presented:** “Demands are the same as stated at the emergency meeting on September 19 at 1.3 mg per day out of the South Well Field Treatment Plant. 2.5 mg a day from the Curtis Surface Water Plant. Basically, with the rain that happened ten days ago we were able to raise the water in the reservoir by two feet but now we are pretty much where we were before the rain. We withdrew from the creek before we hit our pass-by requirement and then had to pull back from using the reservoir which keeps us where we were. Today, and through the weekend is going to help us continue to start filling the reservoir again. One notable project is we have a 1 mg storage tank offline for painting and maintenance.”

**New Castle – Jay Guyer presented:** “Demands are at ½ mg a day. This is consistent with previous years during this time frame. All wells in good shape. Tanks evaluated and everything good with just a couple of small deficiencies that were corrected. Everything for New Castle is good.”

**SUEZ – Larry Finnicum presented:** “Month to date demands for September have been 16.8 mg per day. Starting to see some decline in demands, for September demand was 17.3 mg per day. Chlorides have maintained around 50-60 at our intake over the last ten days and between 60-70 at our TCS (tidal control structure) over the last ten days. TCS still operating in stage two of the Operating Plan so it’s about 2 ½ ft. up and given what the precipitation conditions do here with the rain we are currently experiencing we will most likely be dropping the TCS as the day goes on. One notable project is we took down a 200,000 gallon tank on September 20 for cleaning, maintenance and painting and expect to have back online before Thanksgiving. The Newark interconnections have been tested and are ready to be utilized if needed.”

Mr. Barndt asked if there were any concerns about chlorides in the near future and Mr. Finnicum said, “Not at this point”.

Ms. Baxter asked if this was an average of several readings and Mr. Finnicum said, “We take a “grab” every day of the chlorides for that day at approximately 8:00 a.m.”

Mr. Singer asked if chlorides are tested the same time every day or based on conditions and Mr. Finnicum answered, “The same time every day”.

**Wilmington – Sean Duffy presented:** “Water demands dropping off on Wednesday to about 17.4 mg per day. Earlier in the week demands were lower. They are declining as we go through September. We did begin pumping water to Hoopes Reservoir last Friday and gained a little over one foot in water elevation over six days which equates to about 65 mg of additional storage in Hoopes Reservoir. Have stopped pumping as of this morning. As of this morning in Hoopes Reservoir, water level is 87.3 feet which is 2.7 feet below full.”

Mr. Duffy reported that the raceway project was completed last year and it has increased efficiency and is operated automatically and has reduced water losses.

**Tidewater – Sheila Shannon presented:** “As of September 23, average mgd is 7.34 down from August 8.9 mgd.” A report on projects forthcoming will be done at a later date.

**Sussex Shores – Kelly Glenn presented:** “Currently demand is at about 200,000 gallons per day. 90% of customers are seasonal and demand drops off. No current projects.” Mr. Barndt asked what is the normal demand during the season and Ms. Glenn said that it varies. Ms. Glenn said, “it could be as high as a million gallons a day.”

Note: The next topic on the agenda was the “Discussion of Northern New Castle County Water Conditions”. This was tabled for discussion from the September 19 emergency meeting to today’s meeting. Ms. Mensch asked for the reasoning of the delayed vote from September 19 to today’s meeting because she was unable to attend the meeting on September 19. Mr. Barndt explained to Ms. Mensch that it was due to the fact that it was raining on September 19 and that water levels were improving and it was decided that because of the meeting already scheduled for September 29 that the situation wasn’t yet warranted on September 19.

Mr. Singer suggested moving this topic on the agenda until after hearing the Thirteenth Report to the Governor and General Assembly status update.

#### **WSSC THIRTEENTH REPORT STATUS UPDATE –Jerry Kauffman, WRA**

Mr. Kauffman presented a Power Point presentation and gave a status update of the Thirteenth Report to the Governor and General Assembly – “Last time this was presented, supplies were up and demands were down in Northern New Castle County. Demands and supplies were certified in the Water Supply Self-Sufficiency Reports that the water purveyors submitted. Since supplies are up and demands are down and there is very little projected population growth in Northern New Castle County through 2030, what the committee is going to do in this meeting is to project the base demands for 2015 out to 2030.” Mr. Kauffman also said, “The demands, particularly as we are entering the recharge period and water purveyors are reporting that they are seeing a seasonal decline, the demands are going down so it may not make much of a difference in terms of what we deliberate in terms of drought watch.”

Mr. Kauffman continued his presentation.

Mr. Barndt and Mr. Kauffman mentioned that the committee has already met once and needs to meet again soon at DGS. They also stated the report is slightly behind schedule because of unforeseen circumstances.

#### **DISCUSSION OF NORTHERN NEW CASTLE COUNTY WATER CONDITIONS - Council**

Mr. Barndt asked Council for recommendations on a drought watch.

Ms. Mensch suggested that Council wait until everyone is able to review Ms. Baxter’s next summarization up to the end of September. Mr. Barndt mentioned that he, Ms. Baxter, and Mr. Kauffman have been having weekly telephone calls looking at the numbers and that is what made them decide to have the September 19 emergency meeting. Mr. Barndt stated that he

believes that some of the background given at today's meeting helped to put things in perspective with respect to when Council has called drought watches in the past. "We'll definitely keep an eye on the situation", Mr. Barndt said. Mr. Barndt did concur with Ms. Mensch.

Mr. DiNunzio made the motion that Council take no action but continue to monitor and go from there and if there is a reason to gather Council back, Mr. Barndt will schedule. If not, Council will meet again in January 2017. Mr. Singer seconded. None opposed.

Mr. Kauffman mentioned that the Drought Advisory Guidelines are working as designed.

Ms. Fleming also commented on the Drought Advisory Guidelines. "Regarding what Mr. Singer mentioned earlier, they were very good points. A lot of time, effort and expertise went into creating the Drought Advisory Guidelines. But regarding what Mr. Singer mentioned earlier, that goes into the interpretation and maybe it's time to have some further discussion and even attempt to quantify what those are." Mr. Barndt mentioned that we hold off for now until after this current situation. Mr. Singer agreed with Ms. Fleming but said instead of the word "quantify" maybe use the word "identify".

Council continued to discuss.

#### **NEXT MEETING – John Barndt**

Mr. Barndt mentioned that the next Council meeting will be held in January 2017 at 10:00 a.m. at the Kent County Administration Building, Room 220.

Mr. Barndt asked non-Council members if there were any questions. Ms. Allison Diggins asked, "Since there was enough concern to hold an emergency meeting on September 19, what conservation actions were being taken by the public water suppliers now in the event there is a drought declaration in the near future?" Mr. Barndt stated that at the September 19 emergency meeting, SUEZ, for instance, reported they would go ahead and send information out to their customers. Mr. Finnicum also commented and said they posted notifications on their website and reminded customers of conservation tips. Mr. Finnicum also stated that they gave their field employees pamphlets for customers who had questions regarding conservation.

Further discussion on conservation measures and public education continued among the water companies.

#### **ADJOURN**

The meeting adjourned at 11:41 a.m. by Mr. Barndt.

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These minutes are not intended to be a detailed record. They are for the use of the Water Supply Coordinating Council members in supplementing their personal notes and recall of Council discussions and presentations and to provide information to Council members unable to attend. Minutes recorded and submitted by Kimberly Burris.

Attendees are listed below alphabetically, last name first:

Barndt, John – DNREC, Division of Water  
Baxter, Stefanie – University of Delaware, DGS  
Brinson, Kevin – Asst. State Climatologist  
Budischak, Valann – Delaware Nursery and Landscape Assoc.  
Cocke, William – DNREC, Division of Water  
Diggins, Allison – DNREC, Division of Water  
DiNunzio, Joseph – Artesian Water  
Duffy, Sean – City of Wilmington  
Finnicum, Larry – SUEZ  
Fleming, Lorraine – Delaware Nature Society  
Glenn, Kelly – Sussex Shores  
Gray, Mary Ellen – Kent County  
Guyer, Jay – City of New Castle, Municipal Services Commission  
Hayes, Wilbert - DEMA  
Holmes, Virgil – DNREC, Division of Water, Director  
Homsey, Andrew – University of Delaware, Water Resources Agency  
Hubbard, Thomas - SUEZ  
Jamison, Jamie – Delaware Grounds Management Association, Brandywine Nurseries  
Kauffman, Jerry – University of Delaware, Water Resources Agency, Director  
Mensch, Laura – Department of Agriculture  
Najjar, Ken - DRBC  
Neilson, Kevin – Delaware Public Service Commission  
Neimeister, Mark – City of Newark  
Patone, Pamela – City of New Castle, Municipal Services Commission  
Rudd, John – Office of the State Fire Marshal  
Shannon, Sheila – Tidewater Utilities  
Singer, Victor – Civic League for New Castle County  
Wollaston, Martin – University of Delaware, Water Resources Agency  
Wunsch, David – University of Delaware, DGS